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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/285,639	04/02/99	HELLERSTEIN J	YO998-467

TM02/0731

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EXAMINER	
LY, A	
ART UNIT	**PAPER NUMBER**
2172	6

DATE MAILED: 07/31/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/285,639	Applicant(s) HELLERSTEIN, JOSEPH L.	
	Examiner Anh Ly	Art Unit 2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This Office Action is response to Applicants amendment filed on 05/04/2001.

2. Claims 24-27 have been added.

3. All claims 1-27 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6, 8-17, and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,970,490 issued to Morgenstern in view of US Patent No. 6,167,391 issued to Lawrence.

With respect to claim 1, Morgenstern discloses step of determining at least one collection of data elements (col. 13, lines 12-17, col. 20, lines 61-67, and col. 21, lines 1-5); from the at least one target dataset that matches a collection of data elements from the source dataset as claimed (col. 7, 25-31, col. 8, lines 1-67, and col. 9, lines 1-3).

Morgenstern does not explicitly indicate "the step of computing distance metric between the at least one target collection and the source collection such that a user can

select the at least one target collection given the at least one computed distance metric."

However, Lawrence discloses the computing of distance metric and the computed distance metric (col. 14, lines 19-38, and col. 17, lines 19-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Lawrence so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 2, Morgenstern discloses a method of automating navigation between data with dissimilar structures as discussed in claim 1.

Morgenstern does not explicitly indicate "distance metrics are computed such that the computed distance metrics are presented to the user in a ranked order."

However, Lawrence discloses the computing of distance metric and the computed distance metric (col. 14, lines 19-38, and col. 17, lines 19-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Lawrence so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements,

distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 3, Morgenstern discloses a method of automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements as discussed in claim 1.

Morgenstern does not explicitly indicate "presenting the collection to the user along with the computed distance metric."

However, Lawrence discloses the computing of distance metric and the computed distance metric (col. 14, lines 19-38, and col. 17, lines 19-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Lawrence so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the

specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 4, Morgenstern discloses a method of automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements as discussed in claim 1 and name associated with dataset (col. 10, lines 9-67 and col. 11, lines 1-7).

Morgenstern does not explicitly indicate "a respective name associated with dataset to the user along with the respective collection and the computed distance metric."

However, Lawrence discloses the computing of distance metric and the computed distance metric (col. 14, lines 19-38, and col. 17, lines 19-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Lawrence so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 5, Morgenstern discloses SQL query for collection descriptor in the relational databases as claimed (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

With respect to claim 6, Morgenstern discloses relational databases and attribute associated with SQL query for collection descriptor as claimed (col. 10, lines 9-67, and col. 11, lines 1-15).

With respect to claim 8, Morgenstern discloses target collection descriptor; removing constraints associated with the at least one preliminary target collection descriptor until a non-null element collection is obtained as claimed (col. 10, lines 9-67, col. 11, lines 1-15, col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

With respect to claim 9, Morgenstern discloses source collection of data elements is specified by a source collection descriptor and the target collection of data element is specified by a target collection descriptor and the calculating the difference between constraints in the source collection descriptor and the target collection descriptor to compute the distance metric as claimed (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

With respect to claim 10, Morgenstern discloses the attributes of the constraints are weighted as claimed (col. 4, lines 22-46, col. 6, lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15, lines 15-26).

With respect to claim 11, Morgenstern discloses SQL query for collection descriptor in the relational databases and attribute of constraint that has heavier weight associated therewith as claimed (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67, col. 4, lines 22-46, col. 6, lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15, lines 15-26).

Claim 12 is essentially the same as claim 1 except that it is an apparatus rather than a method ('490 of col. 13, lines 12-17, col. 20, lines 61-67, and col. 21, lines 1-5; col. 7, 25-31, col. 8, lines 1-67, and col. 9, lines 1-3; and '391 of col. 14, lines 19-38, and col. 17, lines 19-40), and is rejected for the same reasons as applied to the claim 1 hereinabove.

Claim 13 is essentially the same as claim 2 except that it is an apparatus rather than a method (col. 14, lines 19-38, and col. 17, lines 19-40), and is rejected for the same reasons as applied to the claim 2 hereinabove.

Claim 14 is essentially the same as claim 3 except that it is an apparatus rather than a method (col. 14, lines 19-38, and col. 17, lines 19-40), and is rejected for the same reasons as applied to the claim 3 hereinabove.

Claim 15 is essentially the same as claim 4 except that it is an apparatus rather than a method ('490 of col. 10, lines 9-67 and col. 11, lines 1-7; and '391 of col. 14, lines 19-38, and col. 17, lines 19-40), and is rejected for the same reasons as applied to the claim 4 hereinabove.

Claim 16 is essentially the same as claim 5 except that it is an apparatus rather than a method (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67), and is rejected for the same reasons as applied to the claim 5 hereinabove.

Claim 17 is essentially the same as claim 6 except that it is an apparatus rather than a method (col. 14, lines 19-38, and col. 17, lines 19-40), and is rejected for the same reasons as applied to the claim 6 hereinabove.

Claim 19 is essentially the same as claim 8 except that it is an apparatus rather than a method (col. 10, lines 9-67, and col. 11, lines 1-15, col. 1, lines 39-60, col. 9, lines 33-43, col. 18, lines 51-67), and is rejected for the same reasons as applied to the claim 8 hereinabove.

Claim 20 is essentially the same as claim 9 except that it is an apparatus rather than a method (col. 1, lines 39-60, and col. 9, lines 33-43, and col. 18, lines 51-67), and is rejected for the same reasons as applied to the claim 9 hereinabove.

Claim 21 is essentially the same as claim 10 except that it is an apparatus rather than a method (col. 4, lines 22-46, col. 6, lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15, lines 15-26), and is rejected for the same reasons as applied to the claim 10 hereinabove.

Claim 22 is essentially the same as claim 11 except that it is an apparatus rather than a method (Col. 1, lines 39-60, col. 9, lines 33-43, col. 18, lines 51-67, col. 4, lines 22-46, col. 6, lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15, lines 15-26), and is rejected for the same reasons as applied to the claim 11 hereinabove.

Claim 23 is essentially the same as claim 1 except that it is an article of manufacture rather than a method ('490 of col. 13, lines 12-17, col. 20, lines 61-67, and col. 21, lines 1-5; col. 7, 25-31, col. 8, lines 1-67, and col. 9, lines 1-3; and '391 of col. 14, lines 19-38, and col. 17, lines 19-40), and is rejected for the same reasons as applied to the claim 1 hereinabove.

With respect to claim 24, Morgenstern discloses step of determining at least one collection of data elements (col. 13, lines 12-17, col. 20, lines 61-67, and col. 21, lines 1-5); from the at least one target dataset that matches a collection of data elements from the source dataset as claimed (col. 7, 25-31, col. 8, lines 1-67, and col. 9, lines 1-3).

Morgenstern does not explicitly indicate "the step of computing distance metric between the at least one target collection and the source collection such that a user can select the at least one target collection given the at least one computed distance metric."

However, Lawrence discloses the computing of distance metric and the computed distance metric (col. 14, lines 19-38, and col. 17, lines 19-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Lawrence so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 25, Morgenstern discloses target collection descriptor; removing constraints associated with the one or more preliminary target collection descriptor until a non-null element collection is obtained as claimed (col. 10, lines 9-67, col. 11, lines 1-15, col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

With respect to claim 26, Morgenstern discloses step of determining at least one collection of data elements (col. 13, lines 12-17, col. 20, lines 61-67, and col. 21, lines 1-5); from the at least one target dataset that matches a collection of data elements from the source dataset as claimed (col. 7, 25-31, col. 8, lines 1-67, and col. 9, lines 1-3).

Morgenstern does not explicitly indicate "the step of computing distance metric between the at least one target collection and the source collection such that a user can

select the at least one target collection given the at least one computed distance metric."

However, Lawrence discloses the computing of distance metric and the computed distance metric (col. 14, lines 19-38, and col. 17, lines 19-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Lawrence so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 27, Morgenstern discloses target collection descriptor; removing constraints associated with the one or more preliminary target collection descriptor until a non-null element collection is obtained as claimed (col. 10, lines 9-67, col. 11, lines 1-15, col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

5. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,970,490 issued to Morgenstern in view of US Patent No. 6,167,391 issued to Lawrence and further of US Patent No. 5,767,854 issued to Anwar.

With respect to claim 7, Morgenstern in view of Lawrence as discussed in claim 1, and also discloses a method of automating navigation between data with dissimilar

structures as claimed (heterogeneous database structures, relational tables, data elements and collection of data elements: see abstract, col. 5, lines 26-60, col. 10, lines 52-67, col. 13, lines 12-15, col. 20, lines 46-67, and col. 21 lines 1-33).

Morgenstern in view of Lawrence does not explicitly indicate "a multi-dimensional database and the step of performing the drill-up operation on the collection descriptor."

However, Anwar discloses the multi-dimensional databases and the drill-up operation (see abstract, col. 1, lines 45-67, col. 2, lines 1-15, and col. 4, lines 1-29 and lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern in view of Lawrence with the teachings of Anwar so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric with the multi-dimensional database and the drill-up operation because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

Claim 18 is essentially the same as claim 7 except that it is an apparatus rather than a method (see abstract, col. 1, lines 45-67, col. 2, lines 1-15, and col. 4, lines 1-29 and lines 60-67), and is rejected for the same reasons as applied to the claim 7 hereinabove.

Contact Information

6. Any inquiry concerning this communication should be directed to Anh Ly whose telephone number is (703) 306-4527. The examiner can be reached on Monday - Friday from 8:00 AM to 4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's supervisor, Kim Vu, can be reached on (703) 305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)

or:

(703) 305-9724 or (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

AL

July 20th, 2001

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